



ISSN 0578-1752
CODEN CKNYAR

中国农业科学

SCIENTIA AGRICULTURA SINICA

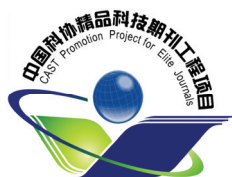
第 53 卷 第 17 期

Vol. 53 No. 17

2020



中国农业科学院 主办
中国农学会



中国 农业 科学

ZHONGGUO NONGYE KEXUE 2020 年第 53 卷第 17 期

目 次

作物遗传育种 · 种质资源 · 分子遗传学

- 3421-3431 doi: 10.3864/j.issn.0578-1752.2020.17.001
川麦 42 和川农 16 抗穗发芽 QTL 定位及聚合效应分析
王琴 刘泽厚 万洪深 魏会廷 龙海 李涛 邓光兵 李俊 杨武云
- 3432-3442 doi: 10.3864/j.issn.0578-1752.2020.17.002
芝麻肌醇半乳糖苷合成酶基因 *SiGals6* 的克隆及功能分析
刘爱丽 魏梦园 黎冬华 周璐 张秀荣 游均
- 3443-3454 doi: 10.3864/j.issn.0578-1752.2020.17.003
基于盐胁迫转录组信息的蚕豆 F-box 基因家族分析
郝树琳 陈宏伟 廖芳丽 李莉 刘昌燕 刘良军 万正煌 沙爱华
- 3455-3466 doi: 10.3864/j.issn.0578-1752.2020.17.004
紫花苜蓿 *MsWRKY42* 的分离、鉴定及其对非生物胁迫的响应
刘佼佼 王学敏 马琳 崔苗苗 曹晓宇 赵威

耕作栽培 · 生理生化 · 农业信息技术

- 3467-3478 doi: 10.3864/j.issn.0578-1752.2020.17.005
高产小麦品种植株干物质积累运转、土壤耗水与产量的关系
全锦 孙敏 任爱霞 林文 余少波 王强 冯玉 任婕 高志强
- 3479-3495 doi: 10.3864/j.issn.0578-1752.2020.17.006
淹水弱光复合胁迫对夏玉米根形态结构、生理特性和产量的影响
王群 赵向阳 刘东尧 闫振华 李鸿萍 董朋飞 李潮海
- 3496-3508 doi: 10.3864/j.issn.0578-1752.2020.17.007
一种面向农业无人机影像分割的尺度参数自动确定方法
石雅娇 陈鹏飞

植物保护

- 3509-3517 doi: 10.3864/j.issn.0578-1752.2020.17.008
柑橘园植保无人飞机低容量喷雾技术探索——以柑橘木虱和潜叶蛾防控为例
王克健 李莉 吕强 易时来 郑永强 谢让金 马岩岩 何绍兰 邓烈
- 3518-3526 doi: 10.3864/j.issn.0578-1752.2020.17.009
山东省小麦田大穗看麦娘抗性水平、靶标抗性机理及田间防除效果测定
高兴祥 李健 张悦丽 李美 房锋

土壤肥料·节水灌溉·农业生态环境

- 3527-3540 doi: 10.3864/j.issn.0578-1752.2020.17.010
黄土高原不同地点小麦籽粒矿质元素的含量差异
王丽 王朝辉 郭子糠 陶振魁 郑洺钧 黄宁 高志源 张欣欣 黄婷苗
- 3541-3552 doi: 10.3864/j.issn.0578-1752.2020.17.011
优化施肥下长江流域冬小麦产量及肥料增产效应
黄晓萌 刘晓燕 串丽敏 杨兰芳 何萍 王秀斌 仇少君 赵士诚 徐新朋
- 3553-3566 doi: 10.3864/j.issn.0578-1752.2020.17.012
我国葡萄主产区的土壤养分丰缺状况
李宝鑫 杨俐苹 卢艳丽 师校欣 杜国强

园艺

- 3567-3575 doi: 10.3864/j.issn.0578-1752.2020.17.013
中、碱性土壤条件下黄腐酸与磷肥配施对番茄生育和磷素利用率的影响
张丽丽 史庆华 巩彪
- 3576-3586 doi: 10.3864/j.issn.0578-1752.2020.17.014
度尾文旦柚叶片矿质元素含量的适宜值
王贤达 范国成 李健

食品科学与工程

- 3587-3596 doi: 10.3864/j.issn.0578-1752.2020.17.015
氯噻啉在青菜上的残留特性及其膳食摄入风险评估
李晓贝 赵晓燕 李健英 陈磊 周昌艳 何香伟

畜牧·兽医·资源昆虫

- 3597-3605 doi: 10.3864/j.issn.0578-1752.2020.17.016
山羊卵泡发育相关基因的筛选及分析
赵园园 李鹏飞 许勤智 安清明 孟金柱
- 3606-3619 doi: 10.3864/j.issn.0578-1752.2020.17.017
蜜蜂球囊菌菌丝和孢子中微小 RNA 及其靶 mRNA 的比较分析
陈华枝 祝智威 蒋海宾 王杰 范元婵 范小雪 万洁琦 卢家轩 熊翠玲 郑燕珍 付中民 陈大福 郭睿

研究简报

- 3620-3628 doi: 10.3864/j.issn.0578-1752.2020.17.018
略阳乌鸡体重和产蛋数性状遗传参数估计
党李苹 周雯馨 刘瑞芳 白云 王哲鹏

CONTENTS

CROP GENETICS & BREEDING·GERMPLASM RESOURCES·MOLECULAR GENETICS

3421-3431 doi: 10.3864/j.issn.0578-1752.2020.17.001

Identification and Pyramiding of QTLs for Traits Associated with Pre-Harvest Sprouting Resistance in Two Wheat Cultivars Chuanmai 42 and Chuannong 16

WANG Qin, LIU ZeHou, WAN HongShen, WEI HuiTing, LONG Hai, LI Tao, DENG GuangBing, LI Jun, YANG WuYun

3432-3442 doi: 10.3864/j.issn.0578-1752.2020.17.002

Cloning and Function Analysis of Sesame Galactinol Synthase Gene *SiGolS6* in *Arabidopsis*

LIU AiLi, WEI MengYuan, LI DongHua, ZHOU Rong, ZHANG XiuRong, YOU Jun

3443-3454 doi: 10.3864/j.issn.0578-1752.2020.17.003

Analysis of F-Box Gene Family Based on Salt-Stressed Transcriptome Sequencing in *Vicia faba* L.

HAO ShuLin, CHEN HongWei, LIAO FangLi, LI Li, LIU ChangYan, LIU LiangJun, WAN ZhengHuang, SHA AiHua

3455-3466 doi: 10.3864/j.issn.0578-1752.2020.17.004

Isolation, Identification, and Response to Abiotic Stress of *MsWRKY42* Gene from *Medicago sativa* L.

LIU JiaoJiao, WANG XueMin, MA Lin, CUI MiaoMiao, CAO XiaoYu, ZHAO Wei

TILLAGE & CULTIVATION·PHYSIOLOGY & BIOCHEMISTRY·AGRICULTURE INFORMATION TECHNOLOGY

3467-3478 doi: 10.3864/j.issn.0578-1752.2020.17.005

Relationship Between Plant Dry Matter Accumulation, Translocation, Soil Water Consumption and Yield of High-Yielding Wheat Cultivars

TONG Jin, SUN Min, REN AiXia, LIN Wen, YU ShaoBo, WANG Qiang, FENG Yu, REN Jie, GAO ZhiQiang

3479-3495 doi: 10.3864/j.issn.0578-1752.2020.17.006

Root Morphological, Physiological Traits and Yield of Maize Under Waterlogging and Low Light Stress

WANG Qun, ZHAO XiangYang, LIU DongYao, YAN ZhenHua, LI HongPing, DONG PengFei, LI Chaohai

3496-3508 doi: 10.3864/j.issn.0578-1752.2020.17.007

A Method for the Automatic Determination of Scale Parameter During Segmenting Agricultural Drone Images

SHI YaJiao, CHEN PengFei

PLANT PROTECTION

3509-3517 doi: 10.3864/j.issn.0578-1752.2020.17.008

UAV Spray Technology for the Citrus Orchard: Taking Control of the *Diaphorina citri* and *Phyllocnistis citrella* as Examples

WANG KeJian, LI Li, LÜ Qiang, YI ShiLai, ZHENG YongQiang, XIE RangJin, MA YanYan, HE ShaoLan, DENG Lie

3518-3526 doi: 10.3864/j.issn.0578-1752.2020.17.009

Resistance Level, Mechanism of *Alopecurus myosuroides* and Control Efficacy in Wheat Field in Shandong Province

GAO XingXiang, LI Jian, ZHANG YueLi, LI Mei, FANG Feng

SOIL & FERTILIZER·WATER-SAVING IRRIGATION·AGROECOLOGY & ENVIRONMENT

3527-3540

doi: 10.3864/j.issn.0578-1752.2020.17.010

Differences of Main Nutrient Concentration in Wheat Grain Between Typical Locations of the Loess Plateau

WANG Li, WANG ZhaoHui, GUO ZiKang, TAO ZhenKui, ZHENG MingJun, HUANG Ning, GAO ZhiYuan, ZHANG XinXin, HUANG TingMiao

3541-3552

doi: 10.3864/j.issn.0578-1752.2020.17.011

Effects of Yield and Fertilization on Yield Increase of Winter Wheat in Yangtze Valley Under Optimized Fertilization

HUANG XiaoMeng, LIU XiaoYan, CHUAN LiMin, YANG LanFang, HE Ping, WANG XiuBin, QIU ShaoJun, ZHAO ShiCheng, XU XinPeng

3553-3566

doi: 10.3864/j.issn.0578-1752.2020.17.012

Status of Soil Fertility in Main Grape Producing Areas of China

LI BaoXin, YANG LiPing, LU YanLi, SHI XiaoXin, DU GuoQiang

HORTICULTURE

3567-3575

doi: 10.3864/j.issn.0578-1752.2020.17.013

Application of Fulvic Acid and Phosphorus Fertilizer on Tomato Growth, Development, and Phosphorus Utilization in Neutral and Alkaline Soil

ZHANG LiLi, SHI QingHua, GONG Biao

3576-3586

doi: 10.3864/j.issn.0578-1752.2020.17.014

Optimum Content of Mineral Elements in the Leaves of Duweiwendan Pomelo (*Citrus grandis* (L.) Osbeck. cv. Duweiwendan)

WANG XianDa, FAN GuoCheng, LI Jian

FOOD SCIENCE AND ENGINEERING

3587-3596

doi: 10.3864/j.issn.0578-1752.2020.17.015

Residue Behavior and Dietary Intake Risk Assessment of Imidaclothiz in Pakchoi (*Brassica chinensis* L.)

LI XiaoBei, ZHAO XiaoYan, LI JianYing, CHEN Lei, ZHOU ChangYan, HE XiangWei

ANIMAL SCIENCE·VETERINARY SCIENCE·RESOURCE INSECT

3597-3605

doi: 10.3864/j.issn.0578-1752.2020.17.016

Screening and Analysis of Follicular Development Related Genes in Goat

ZHAO YuanYuan, LI PengFei, XU QinZhi, AN QingMing, MENG JinZhu

3606-3619

doi: 10.3864/j.issn.0578-1752.2020.17.017

Comparative Analysis of MicroRNAs and Corresponding Target mRNAs in *Ascosphaera apis* Mycelium and Spore

CHEN HuaZhi, ZHU ZhiWei, JIANG HaiBin, WANG Jie, FAN YuanChan, FAN XiaoXue, WAN JieQi, LU JiaXuan, XIONG CuiLing, ZHENG YanZhen, FU ZhongMin, CHEN DaFu, GUO Rui

RESEARCH NOTES

3620-3628

doi: 10.3864/j.issn.0578-1752.2020.17.018

Estimation of Genetic Parameters of Body Weight and Egg Number Traits of Lueyang Black-Boned Chicken

DANG LiPing, ZHOU WenXin, LIU RuiFang, BAI Yun, WANG ZhePeng